

Intro

Let me begin this by apologizing to everyone that uses Inkscape.. These instructions are geared toward people like me that have never used it before. EVERYTHING in this help file is step by step. If there is a better way of doing it, let me know and I will revise the instructions.

Be forewarned... Making fonts is very tedious, but once you build a couple of letters, it's not very difficult. I tried to cover all the problems that I encountered while I was making fonts, but I might have missed a few. If so, contact me on Thingiverse (harlandmii) . Someone else might have the same problems.

Note: If you do take the time to build a font, PLEASE share it!!!! I and anyone else that use it would be grateful :)

If you have problems, check the help section... I will try to keep it as updated as possible.

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Setting Up Inkscape

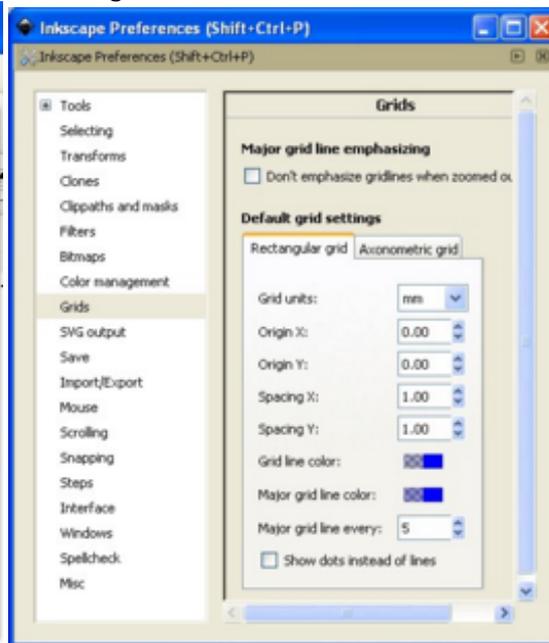
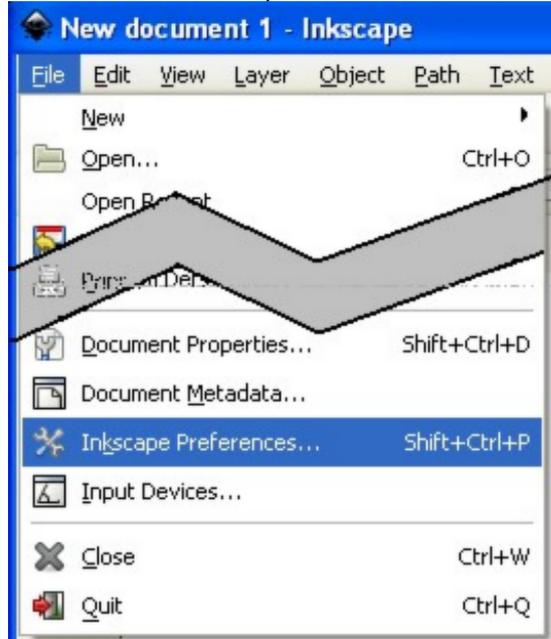
I used Inkscape to create the DXF file that contains Font Information.

Download the latest version from www.inkscape.org

My Settings for Inkscape

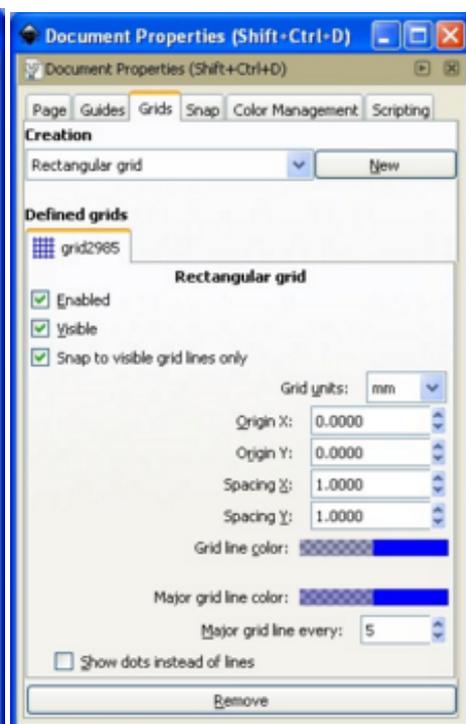
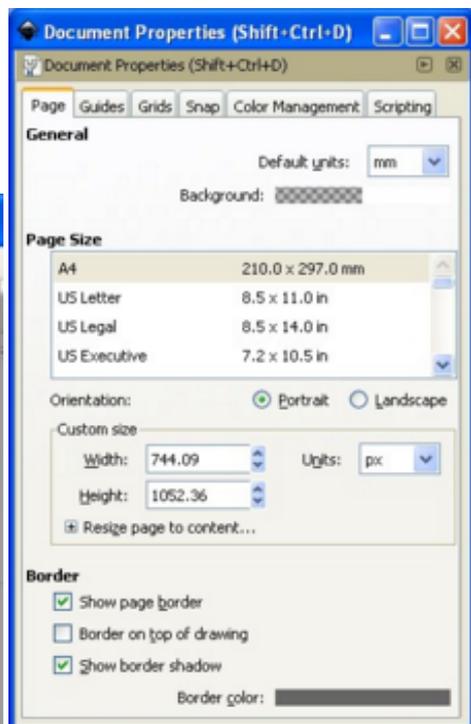
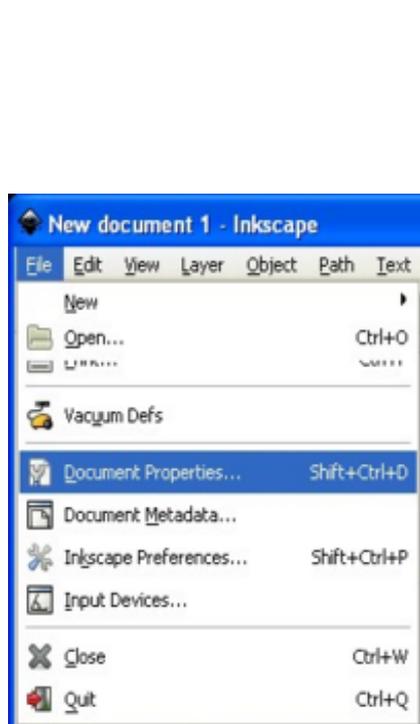
(Click File.. Inkscape Preferences...)

Set grid units to mm

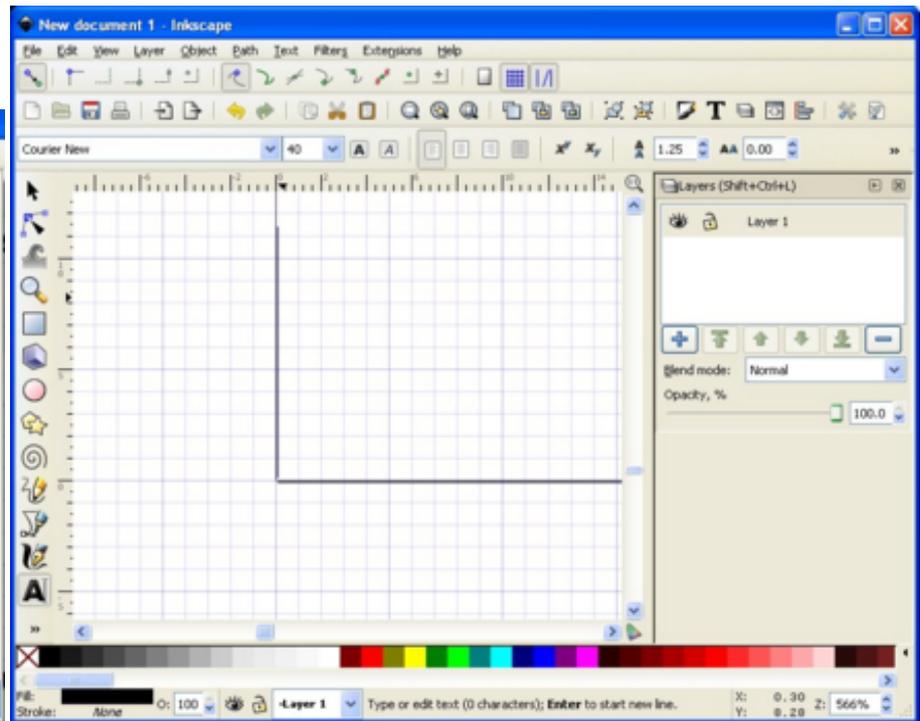
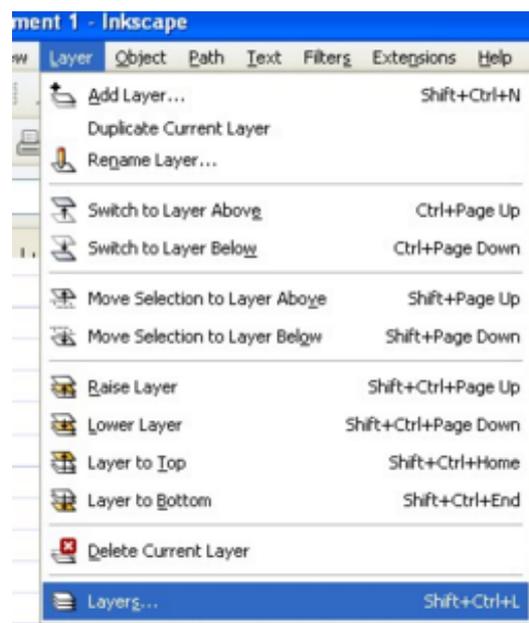


(Click File.. Document Properties) Default Unit=mm..

Spacing =1mm (If there isn't a defined grid, simply click New)



To view the layers window..
(click Layer.. Layers)



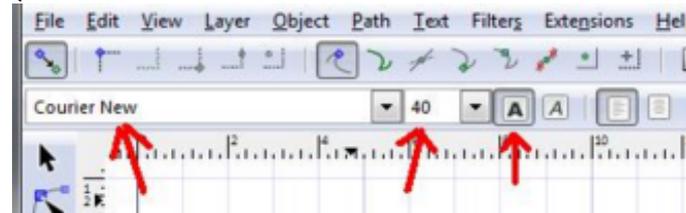
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Making a Guide

Click Create Text

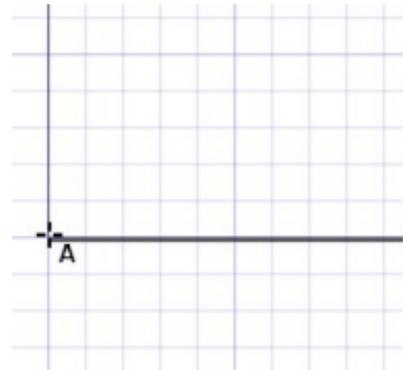


At the top of inkscape, Choose Desired Font and set font size to 40 (I also selected bold because courier is a thin font)

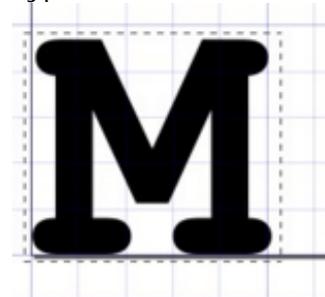


The first letter needs to be one of the larger letters, (Like capital M or W) so we can make a bounding guide to align the rest of the letters.

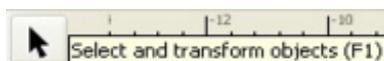
I am zoomed in pretty close here (1mm squares) Click in the bottom left of the page marker



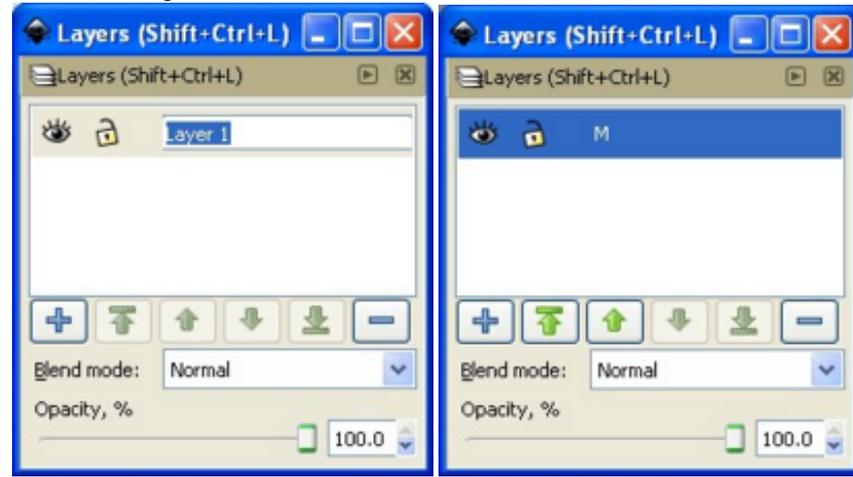
Type M



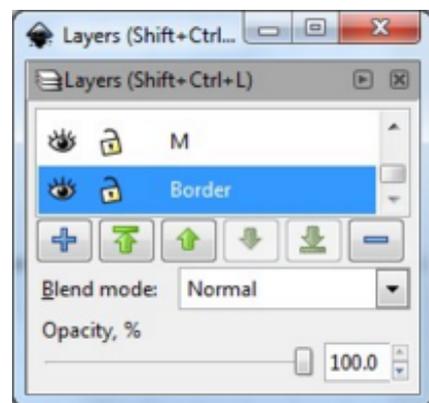
Use the Arrow (select and transform) to align the letter to the left and bottom of the page marker.



Rename Layer 1 to the name of the letter



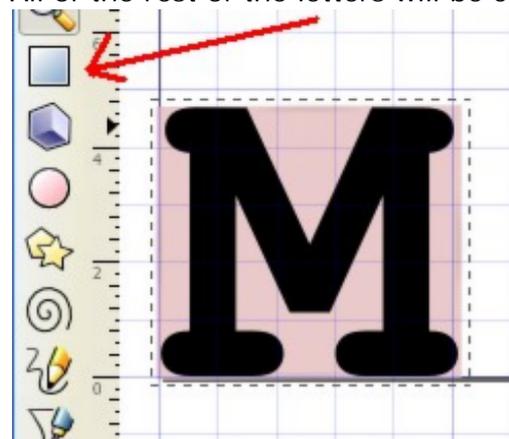
On the layers window, click the + to add a new layer.
(Name it Border or something similar)
Use the Green Down Arrow to move it to the bottom
of the list.



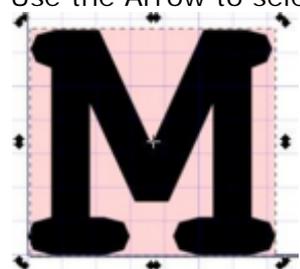
Make sure the Border layer is selected in the layers window.

Click Create Rectangle and make a bounding box for the M
(I chose light pink)

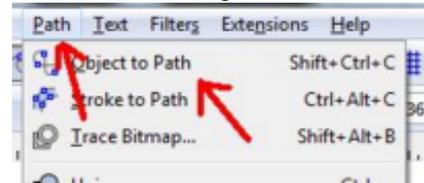
All of the rest of the letters will be centered in this box.



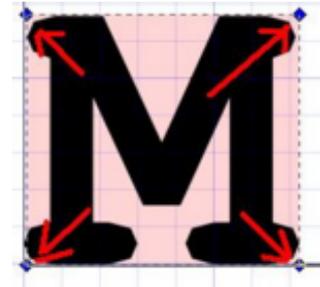
Use the Arrow to select the box 



Click Path... Object to Path

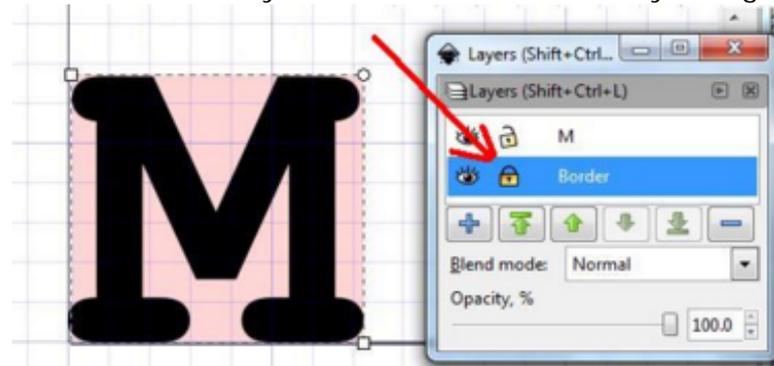


Use Edit paths by nodes.
and select all four corners



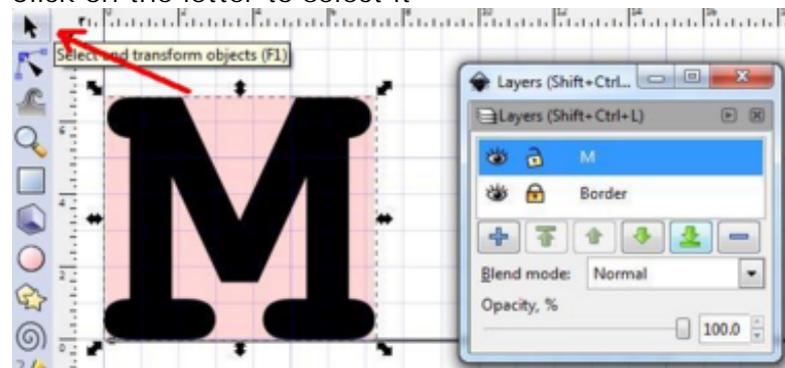
Click Make selected segments lines
(This process will be used on each letter to convert them to lines)

Lock the Border layer so it can't be accidentally changed.

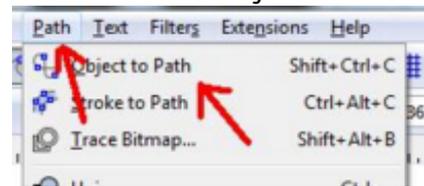


Choose the letter (M) Layer again..

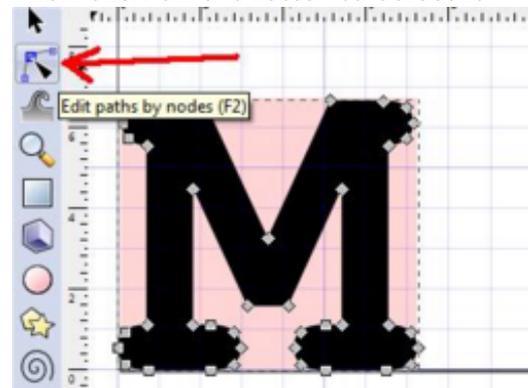
Click the arrow (Select and transform)
Click on the letter to select it



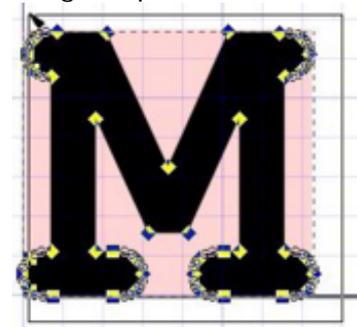
Click Path and Object to Path



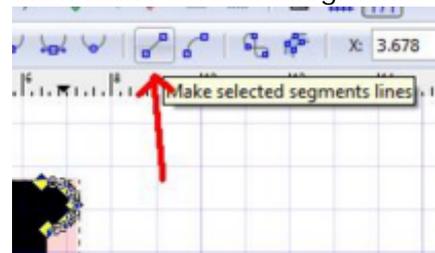
Click Edit paths by nodes..
Then click on the letter to select it.



Drag a square around the letter to select all the nodes



Click Make selected segments lines



If everything looks ok, we can go to the next letter.
(If not, see the section on Making Letters Better)

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Making Letters

Repeat the following steps for all letters and symbols

Click the + on the layers window to make a layer for the next letter. (If its an A, name the layer A)

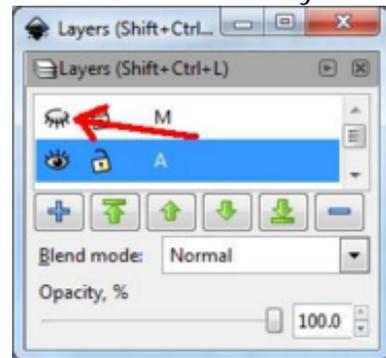
(lower case letter layers are named with a lower case letter and an underscore ie... the layer for lower case c would be c_)

(layers are case sensitive)

(use the green arrows to put the layers in order if desired)

Close the eye on the M layer to hide it..

Then choose the A layer to edit

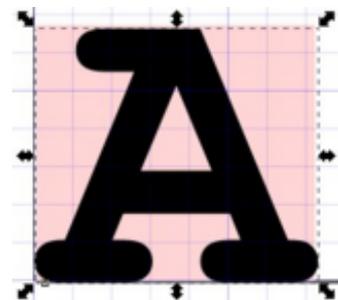


Choose create and edit text objects

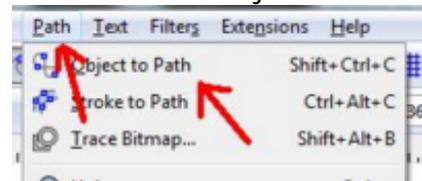


Type the letter (A)

Use the Arrow to align it



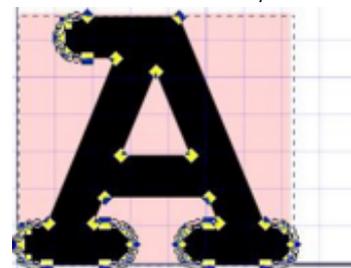
Click Path and Object to Path



Click edit paths by nodes



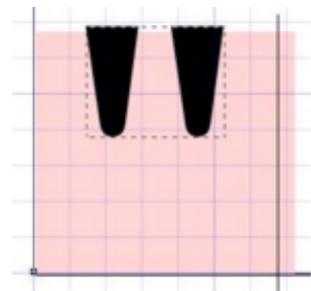
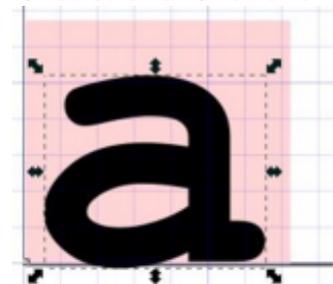
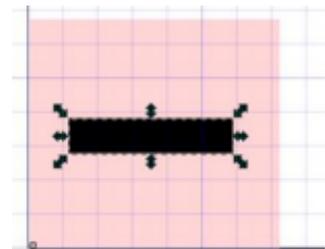
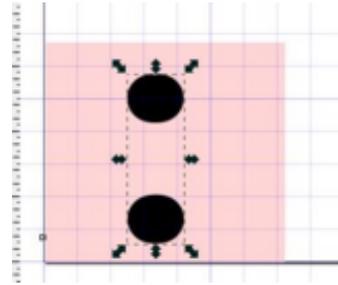
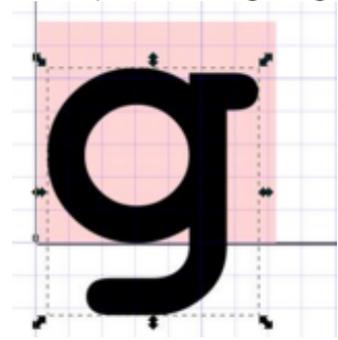
Click on the letter, then select all the nodes





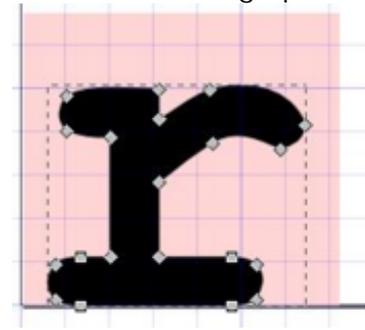
Click Make selected segments lines
(That is the process for each letter)

Examples of aligning letters



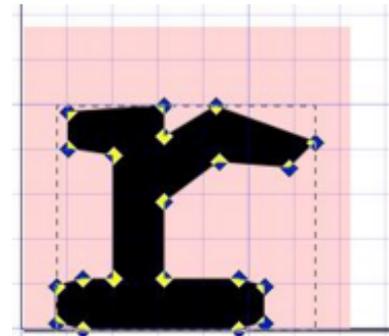
Making Letters Better

Sometimes, when you click Path..Object to path, the image won't have enough points to make curved sides.



After you select all the nodes and click

Make Selected Segments Lines,  it becomes obvious.



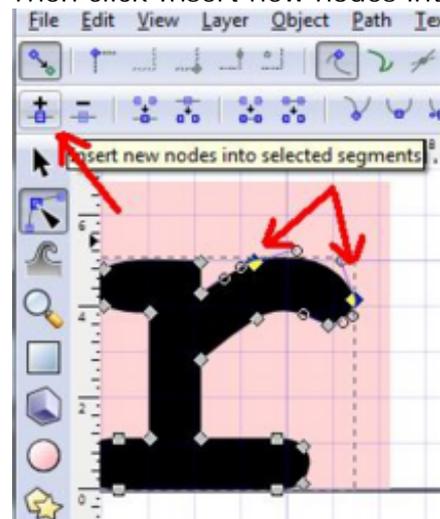
If you don't like the looks of the letter, hold Ctrl and press Z to undo the change.

Click Edit paths by nodes 

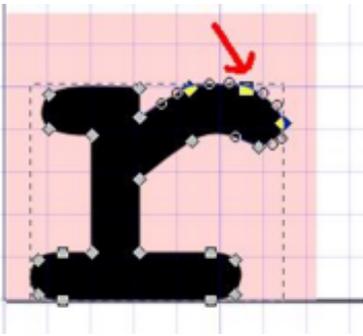
Select 2 or more nodes

(tip: click one node, then hold shift and click another)

Then click Insert new nodes into selected segments.



A new node will be on the curve.

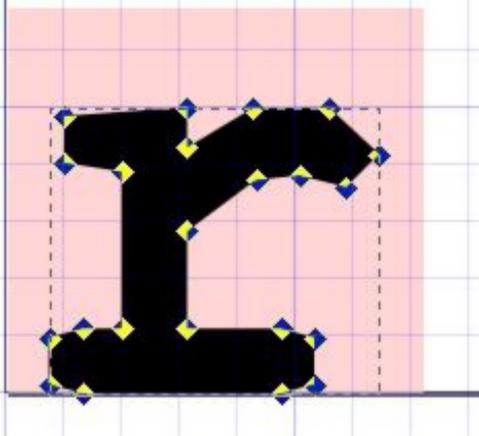


Repeat this process on each area that doesn't have enough nodes to make the curves look smooth.

NOTE: The more nodes a letter has, the slower it will draw in OpenScad. The fewer, the better.

When you're done adding nodes, select them all, and

click  Make selected segments lines



Move on to the next letter

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Saving the File

Be sure to save the SVG file each time.. Just click file.. Click save
Name the file with the name of the font.

To use the font in OpenScad, we need to convert it to a DXF file.
Before saving the DXF, verify that all letters,boxes and shapes are
converted to line segments. Otherwise, OpenScad won't be able to use it.

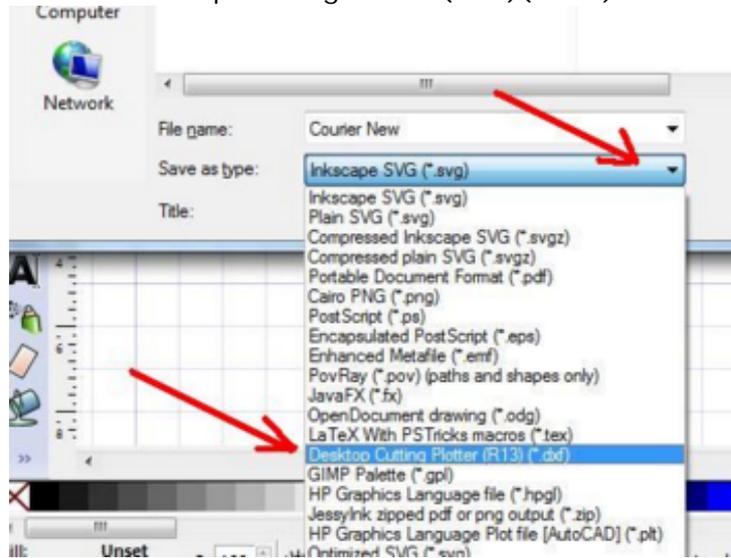
To make the DXF file:

Click File...

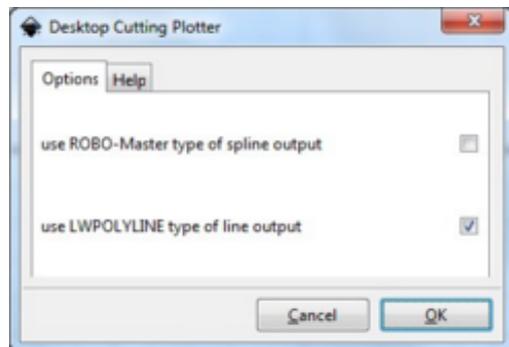
Click Save As...

Click the down arrow on save as type..

Choose Desktop Cutting Plotter(R13)(* .dxf)



Click OK



Note: If you are testing a font as you create it, clear the cache on OpenScad the next time you update the Font... New letters won't appear until you do. (on OpenScad, click Design..click Flush Caches)

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HELP!!!

I will add this as soon as possible

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Testing While Making Fonts

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Font File Doesnt Work

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Some Letters Are Missing

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